

DRW



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Re application of: Wang et al.  
Application Serial No.: 10/718,877  
Filed: November 21, 2003  
For: Method of Forming Metal Plug  
Patent No.: Unassigned  
Issue Date: Unassigned

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**CERTIFICATE UNDER 37 C.F.R. §3.73(b)  
ESTABLISHING RIGHT OF ASSIGNEE TO TAKE ACTION**

1. The assignee of the entire right, title and interest hereby seeks to take action in the PTO in this matter.

**IDENTIFICATION OF ASSIGNEE**

2. The assignee of this matter is:

**TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.**

No. 8, Li-Hsin Rd. 6  
Science-Based Industrial Park  
Hsin-Chu 300-77, Taiwan, R.O.C.

**PERSON AUTHORIZED TO SIGN**

3. Daniel R. McClure  
Attorney for Assignee

4. A chain of title from the inventor(s) to the current assignee is shown below:

a. From: Shih Wei Wang and Chia-Dar Hsieh  
To: Taiwan Semiconductor Manufacturing Co., Ltd.  
Recorded in PTO: Reel: 014737 Frame: 0550

### **DECLARATIONS**

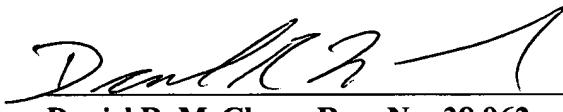
5. I, the undersigned, have reviewed all the documents in the chain of title of the

application  
 patent

matter identified above and, to the best of my knowledge and belief, title is in the assignee identified above.

6. I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

7. I, the person signing below, aver that I am empowered to sign this statement on behalf of the assignee.



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Daniel R. McClure; Reg. No. 38,962

Tel. No. 770-933-9500

Customer No.: 24504

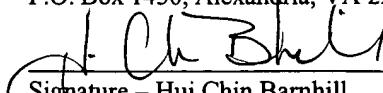
Docket No. 252016-2860

**THOMAS, KAYDEN, HORSTEMEYER  
& RISLEY, L.L.P.**

100 Galleria Parkway, Suite 1750  
Atlanta, Georgia 30339-5948

### **Certificate of Mailing**

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on August 4, 2005.



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Signature – Hui Chin Barnhill

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application:

Application No.:

Filed:

Title:

Commissioner for Patents  
Washington, D.C. 20231

**POWER OF ATTORNEY BY ASSIGNEE OF ENTIRE INTEREST**  
**(REVOCATION OF PRIOR POWERS)**

As assignee of record of each of the patent applications listed in the table of attachment A,

**REVOCATION OF PRIOR POWERS OF ATTORNEY**

all powers of attorney previously given in each of the listed patent applications are hereby revoked, and

**NEW POWER OF ATTORNEY**

the following attorneys/agents are hereby appointed to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: I hereby appoint all attorneys of Thomas, Kayden, Horstemeyer & Risley, LLP, who are listed under the USPTO Customer Number shown below as the attorneys to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith, recognizing that the specific attorneys listed under that Customer Number may be changed from time to time at the sole discretion of Thomas, Kayden, Horstemeyer & Risley, LLP, and request that all correspondence about the application be addressed to the address filed under the same USPTO Customer Number.

000047390  
Patent Trademark Office

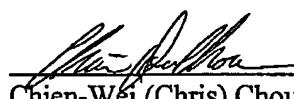
Please direct all future correspondence and telephone calls to:

Daniel R. McClure, Reg. No. 38,962  
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, L.L.P.  
100 Galleria Parkway, Suite 1750  
Atlanta, Georgia 30339  
770-933-9500

**Attachment A**

No.	Serial No	TSMC No	Application Title	Filing Date	Assignment (Reel/Frame)
1	10/687,178	TS02-776	New Method To Reduce CD Non-Uniformity In IC Manufacturing	10/16/03	014626/0161
2	10/820,320	TS01-1357B	Whole Chip ESD Protection		013155/0802
3	10/736,948	TS03-222	Dry Film Remove Pre-Filter System	12/16/03	014812/0819
4	10/718,191	TS03-179	Novel Encapsulation Method For SBGA	11/20/03	014737/0521
5	10/781,169	TS03-130/092	Underfilling Efficiency By Modifying The Substrate Design Of Flip Chips	02/18/04	015007/0129
6	10/690,995	TS03-129	Electrically Programmable Polysilicon Fuse With Multiple Level Resistance And Programming	10/22/03	014632/0053
7	10/754,835	TS02-1398	Method To Reduce A Capacitor Depletion Phenomena	01/09/04	014897/0115
8	10/822,193	TS02-1314	Novel Test Structure For Speeding Stress-Induced Voiding Test And Method Of Using Same	04/09/04	015207/0683
9	10/798,558	TS02-1226	Calibration Standard For Critical Dimension Verification Of Sub-Tenth Micron Integrated Circuit Technology	03/11/04	015086/0116
10	10/696,006	TS02-1033	Structure For Reducing Leakage Currents And High Contact Resistance For Embedded Memory And Method For Making Same	10/29/03	014660/0568
11	10/762,166	TS02-716	Flash Memory Cell With A Unique Split Programming Channel And Reading Channel	01/21/04	014915/0977
12	10/718,877	TS02-622	Endurance Improvement By Sidewall Nitridation Of Poly Floating Gate For Nonvolatile Memory Devices Using Substrate Or Drain-Side Erase Scheme	11/21/03	014737/0550
13	10/758,316	TS03/492	Method Of Fabricating A Word-Line Spacer For Wide Over-Etching Window On Outside Diameter (OD) And Strong Fence	01/15/04	014907/0961
14	10/793,406	TS02/1156	Heuristics For Efficient Supply Chain Planning In a Heterogeneous Production Line	03/04/04	015053/0921
15	10/719,722	TS03/373	Method To Form Flash Memory With Very Narrow Polysilicon Spacing	11/21/03	014740/0347

Date: January 25, 2005

  
 Chien-Wei (Chris) Chou  
 Director - Intellectual Property Division

ASSIGNEE OF ENTIRE INTEREST

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.  
8, Li-Hsin Rd. 6  
Hsinchu Science Park  
Hsinchu, Taiwan 300-77, R.O.C.

ASSIGNEE CERTIFICATION

The certification under 37 C.F.R. §3.73(b) establishing the right of assignee to take action is attached hereto along with documentation evidencing same. Further, in my official position with Taiwan Semiconductor Manufacturing Company, Ltd., I am authorized to sign documents and otherwise act on its behalf in connection with the management and handling of patent applications and other intellectual property matters.

Date: January 25, 2005

  
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Chien-Wei (Chris) Chou  
Director - Intellectual Property Division